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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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07/20/2001

Kenji Tokumitsu

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EXAMINER

AGUSTIN, PETER VINCENT

ART UNIT

PAPER NUMBER

2652

DATE MAILED: 01/20/2004

6

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/910,594

Applicant(s)

TOKUMITSU ET AL.

Examiner

Peter Vincent M Agustin

Art Unit

2652

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☒ Claim(s) 3,6,9 and 11 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other: ____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

2. The disclosure is objected to because of the following informalities:

Page 1, line 14: Delete "recording method".

Page 1, line 17: Change "want" to --wants--.

Page 4, line 17: Move "BRIEF SUMMARY OF THE INVENTION" to page 6, between lines 1 and 2.

Page 16, line 23: Change "completely" to --completed--.

Page 20, line 5: Change "normally or is" to --normally or not is--.

Page 13, line 16: Change "number of times of recording 242 are set" to --number of times of recording 242 are set in the buffer memory 24--.

3. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

4. Claims 3, 6, 9 & 11 objected to because of the following informalities:
 - a. The placement of commas, lack of punctuation marks, and general arrangement of the claim render this claim grammatically confusing and should be revised appropriately.

- b. Claim 6, lines 7-8, change "update count is said allowable number of times of recording or larger" to --update count is equal to said allowable number of times of recording or larger--.
- c. Claim 9, line 2: Change "allowable number of times of information" to --allowable number of times of recording of information--.
- d. Claim 11, line 4: Change "area is the predetermined number" to --area is equal to the predetermined number--.
- e. Claim 11, line 6: Change "area is said allowable number" to --area is equal to said allowable number--.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-7 & 12 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- a. Claim 1 recites the limitations "the area including a defect" on line 4 and "the allowable number of times of recording of information" on line 9. There is insufficient antecedent basis for these limitations in the claim.
- b. Claim 2 recites the limitation "reproducing medium" on line 1. There is insufficient antecedent basis for this limitation in the claim. The examiner suggests deleting "reproducing" on line 1.

- c. Claim 3 recites the limitations "said allowable number of times of recording of information" on line 6 and "said area including a defect" on line 10. There is insufficient antecedent basis for these limitations in the claim.
- d. Claim 4 recites the limitation "the information update count" on line 2. There is insufficient antecedent basis for this limitation in the claim.
- e. Claims 2, 7 & 12 recite the limitation "the DVD-RAM format". There is insufficient antecedent basis for this limitation in the claims.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1, 3, 4, 6, 8 & 9 rejected under 35 U.S.C. 102(b) as being anticipated by Kawakami (US 5,574,708).

In regard to claim 1, Kawakami discloses an information recording medium (figure 1, element 1) which includes a user data area (figure 4, element 2a) and a medium management information area (figure 1, element 31) and allows update of information, comprising: an alternative area for the area including a defect on said information recording medium detected when information is recorded or reproduced (figure 4, element 2b); and a management area for management of correspondence between said area including defect and said alternative area (figure 4, element 2b), wherein the information for identifying the allowable number of times of recording of

information is previously recorded on the recording medium (column 5, lines 52-54; column 6, lines 3-5).

In regard to claim 3, Kawakami discloses an information recording control method for conducting recording and reproduction of information to an information recording medium (figure 1, element 1) having a user data area (figure 4, element 2a), an alternative area for the defective area (figure 4, element 2b) and a medium management information area (figure 1, element 31) to execute the update of information, wherein: information for identifying said allowable number of times of recording of information is previously recorded to said information recording medium (column 5, lines 52-59; column 6, lines 3-5); if a defect on said information recording medium is detected during recording or reproduction of information, the information indicating the alternative area to said area including the defect is recorded to said medium management information area (column 3, lines 33-48); and when the recordings to at least said medium management information area exceed the allowable number of times of recording based on said information for identifying the allowable number of times of recording, the recording is controlled (figure 6, step S13).

In regard to claim 4, Kawakami discloses that the information update count is recorded to said medium management information area (column 5, lines 52-59) and the update of information to said medium management information area is controlled by comparing said update count and said allowable number of times of recording (figure 6, step S13).

In regard to claim 6, Kawakami discloses that: said update count is compared with said allowable number of times of recording when said allowable number of times

of recording is set (figure 5, step S10; column 7, lines 4-8); when said update count is under said allowable number of times of recording, update of recording times to said medium management information area is allowed (figure 5, step S11; column 7, lines 8-10); and when said update count is said allowable number of times of recording or larger, update of recording times to said medium management information area is not allowed for the erroneous completion of process (column 7, lines 18-20 & lines 65-67); and if said allowable number of times of recording is not yet set, update of recording times to said medium management information area is also allowed. It should be noted that in the event that the allowable number of times of recording is not yet set, the allowable number of times is assumed to be infinite, i.e., step S10 of figure 5 will decide that the number of writing times is not greater than the number of life times; therefore, unlimited recording is allowed.

In regard to claim 8, Kawakami discloses an information recording control method for conducting recording and reproduction of information to an information recording medium (figure 1, element 1) which allows update of information, comprising the steps of: recording information indicating an alternative area for the area including a defect to the medium management information area when said defect on said information recording medium is detected at the time of recording or reproducing information (column 3, lines 33-48), and controlling the recording and reproduction of information depending on the number of times of recording of information indicating said alternative area to said medium management information area (figure 6, step S13).

In regard to claim 9, Kawakami discloses that the allowable number of times of information is previously recorded to said information recording medium (column 5, lines

52-54; column 6, lines 3-5), and said method includes a step for controlling the recording and reproduction of information by comparing said allowable number of times of recording to the number of times of recording to said medium management information area (figure 6, step S13).

9. Claim 8 rejected under 35 U.S.C. 102(b) as being anticipated by Ito et al. (hereafter Ito) (US 5,715,221).

Ito discloses an information recording control method for conducting recording and reproduction of information to an information recording medium (figure 13, element 1312) which allows update of information, comprising the steps of: recording information indicating an alternative area for the area including a defect to the medium management information area when said defect on said information recording medium is detected at the time of recording or reproducing information (column 4, lines 28-32), and controlling the recording and reproduction of information depending on the number of times of recording of information indicating said alternative area to said medium management information area (figure 14, step S1404; column 10, lines 36-39).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 5, 10 & 11 rejected under 35 U.S.C. 103(a) as being unpatentable over Kawakami in view of Ito.

For a description of Kawakami, see the rejection above. Kawakami (in regard to claim 5), however, does not disclose that the recording to said medium management information area is continued when said medium management information area is recorded in multiple on the two or more areas and recording is completed normally to the two or more predetermined number of areas among said multiple recording areas.

Ito in the defect management art, discloses that the recording to said medium management information area is continued when said medium management information area is recorded in multiple on the two or more areas and recording is completed normally to the two or more predetermined number of areas among said multiple recording areas (column 2, lines 29-30). It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to have added the step of continuing the recording to two or more predetermined areas as suggested by Ito to the method of Kawakami. The motivation would have been to increase the reliability of recording even with the presence of errors.

Furthermore, in regard to claim 10, Kawakami discloses a step for continuing the recording and reproduction of information when the recorded information is read out normally (figure 7, steps S25 & S27). In regard to claim 11, Kawakami discloses that the recording and reproduction of information are continued when the number of normal areas in said medium management information area is the predetermined number or larger even if the number of times of recording to said medium management information area is said allowable number of times of recording or larger (figure 6, steps S13 & S16). Kawakami, however, does not disclose that the information indicating the

alternative area is recorded to said medium management information area in multiple to a plurality of areas (claim 10).

Ito in the defect management art, discloses that the information indicating the alternative area is recorded to said medium management information area in multiple to a plurality of areas (column 2, lines 29-30). It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to have recorded the information in multiple areas as suggested by Ito in addition to the method described by Kawakami. The motivation would have been to increase the reliability of recording even with the presence of errors.

12. Claims 2 & 7 rejected under 35 U.S.C. 103(a) as being unpatentable over Kawakami in view of Ko (US 6,377,524).

For a description of Kawakami, see the rejection above. Kawakami, however, does not disclose that said user data, medium management information, alternative area and management area conform to the DVD-RAM format and said management area is the secondary defect list (SDL).

Ko in the defect management art, discloses that said user data (figures 1 & 2), medium management information (figure 3), alternative area (figures 1 & 2) and management area (figure 3) conform to the DVD-RAM format (column 5, lines 41-45) and said management area is the secondary defect list (figure 3; column 5, lines 32-45). It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to have provided a DVD-RAM format to the user data, etc. of Kawakami as suggested by Ko. The motivation would have been to increase the reliability of data recorded to the disk as taught by Ko (see column 1, lines 43-45).

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13. Claim 12 rejected under 35 U.S.C. 103(a) as being unpatentable over Kawakami and Ito as applied to claim 11 above, and further in view of Ko.

For a description of Kawakami and Ito, see the 103 rejection above. However, Kawakami and Ito remain silent to whether said medium management information area is the secondary defect list (SDL) conforming to the DVD-RAM format.

Ko in the defect management art, discloses that said medium management information area is the secondary defect list (SDL) conforming to the DVD-RAM format (figure 3; column 5, lines 32-45). It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to have provided a DVD-RAM format to the medium management information area of Kawakami and Ito as suggested by Ko. The motivation would have been to increase the reliability of data recorded to the disk as taught by Ko (see column 1, lines 43-45).

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Yamanaka et al. (US 5,005,165) discloses a method for managing information on a storage media without losing information due to defects.


Nakazato et al. (JP 2001210011A) discloses a processing method for limiting the number of times of reproduction on an optical disk.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Vincent M Agustin whose fax number is (703) 746-9788. The examiner can normally be reached on Monday thru Friday 9:00AM - 5:30PM.

If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Hoa Nguyen can be reached on (703) 305-9687. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-3718.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Peter Agustin
01/05/2004



BRIAN E. MILLER
PRIMARY EXAMINER